CST8117 Assignment 2: Group Project

Note you will need to complete this assignment by uploading all required files onto BrightSpace. This assignment will also include a live demo in the lab classes for our last week of class. Students will have a portion of their mark as a shared mark and receive individual marks for their identified contributions to the project.

Part I: Choosing Your Team

Teams will consist of three or four students and one student will be the team lead. It is encouraged that you play to your strengths in this lab, the team leader will oversee facilitating team communication, project integration, and client interaction. When you have decided on your team configuration communicate this to your lab instructor.

Suggested Team Roles

Team Leader	The team leader should be the person on your team most comfortable with interacting with the client (your instructor) and will be the coordinator for the whole project. They are responsible to contacting the client, managing deliverable dates, communicating the scope of the project to the team, deciding on any project specific programming standards (such as appropriate library adoption), leading the final demo, as well as integrating the code and documentation as deliverables. ** The team leader role can be combined with any other role in a three-person team.*
Front End Designer	The front-end designer is responsible for user interface design as well as developing the CSS layout for the project. They will ensure that the website/application has a responsive layout accommodating both a mobile and a desktop layout schema. They will also develop/collect any graphical collateral required for the project.
Front End Developer	The front-end developer works closely with the front-end designer and the UX developer to create consistent HTML integrated with the CSS and

	JavaScript. They are expected to implement clear and consistent semantic markup and to ensure that any interfaces are implemented correctly to interface with any client-side scripting for validation and dynamism.
User Experience Developer	The UX developer works closely with the front-end designer to create a dynamic and functional front-end web experience using JavaScript and any team agreed upon libraries. They are expected to follow the semantic markup set out by the front-end designer and to ensure that all interface elements provide clear, customized validation as well as that all dynamic content is functional.

Part II: Choosing Your Project

For your final project you will create a robust dynamic front-end web application which meets the following minimum criteria:

- An attractive, consistent, functional, and responsive layout with both a mobile and desktop mode dynamically available.
- The website or web application will use browser cookies or the web storage API to customize the experience for returning visitors.
- The website will include dynamic interactive content that will prepare data from the user to be submitted to the back end. We will not be implementing the back-end, but you should make sure any form data is validated and formatted for return to the back-end. To demonstrate you will send the data to another page rendering and simulate responding. For example, a contact form submission should send its data to a page that thanks the user personally for their contact request and gives them a friendly message.
- The website should also include dynamic interactive content that modifies the user experience in some way, for example you could include a dark mode for the users (if you choose the dark mode option make sure that all the elements remain attractive, consistent, functional, and that dark mode follows them throughout their browsing session).
- The website will also include the use of asynchronous data from a publicly accessible API at least somewhere on the website. Your website will request and respond to data from a source such as a weather service, news aggregator, catalogue, etc. Most of these APIs will return either JSON or XML data which you will need to parse and display some of the data as

content on your page. For example, a news aggregator will allow you to search for current news articles based on the subject matter of your website and can be formatted into a "What's New" section of your site.
- You are free to use any simple libraries (like jQuery) that can be implemented through online linking or simple file inclusion. Do not use frameworks that involve setting up a back-end deployment. Also do not use a library that your team is not already familiar with or willing to learn for this project – the rule of thumb here is never use code you do not understand.

Possibilities include a business website that recognizes and greets returning visitors; a game website that implements several simple JavaScript games and remembers user high scores for at least one user; a development team website that includes a splashy menu and pages for each team member highlighting their specialties (such as a portfolio carousel for each); or any other idea that includes the minimum criteria and your team would find enjoyable as a challenge.
When you have decided on a project the team leader will inform the lab professor who will do their final evaluation by email. This email should include the team composition including roles, a brief description of the project, a map of proposed webpages, as well as any libraries (such as jQuery) that you plan on using. Your lab professor will give you feedback including recommendations to keep the project in scope as well as features that the instructor specifically requests.

Part III: Project Submission

When the project is completed and tested you will package up the deliverables as follows:

- All website collateral (code, images, etc.) arranged in folders so that they can be extracted in a subdirectory on the lab instructor's computer. If you use libraries, these must also be included or linked. Do not use libraries of frameworks that require a functional back-end to test.
- All supporting documentation. At a minimum this should include: your submitted descriptiong of the project, a web map, a design guide, a user interface functionality guide. All of these can be in a single document. The design guide needs to define colour schemes and can include annotated images from the completed website. The UX functionality guide will simply describe each of the scripts used by the website.

Upload the zip file to Assignment 2 on BrightSpace.

Part IV: Final Project Demo (Full Team)

You are expected to demo your website. The team leader will lead this meeting with the instructor, but each participant should be able to describe and demo the features of the website that they have worked on. The team leader will schedule this demo for one of the lab classes in our final week of labs.